

PHENIX WEEKLY PLANNING



11/17/2011

Don Lynch

TECHNICAL SUPPORT

This Week

- Continue RPC1 N commissioning
- Continue MuTr station 2 & 3 North terminators & Clamp-on re-capacitors in MMN
- Continue MuTr station 2 & 3 South Clamp-on re-capacitors in MMS
- VTX repairs/upgrades/reassembly completed
- Continue FVTX/VTX integration and survey
- FVTX rack assembly continues
- Continue DC East Repairs
- Continue RPC1 South installation
- MPC South troubleshooting
- BBC South installation
- Continue design and procurement for RPC3 shielding, Hodoscope, AH Crane upgrade & repairs, and R134A shed

Next Week

- Continue RPC1 N commissioning
- Continue MuTr station 2 & 3 North terminators & Clamp-on re-capacitors in MMN
- Continue MuTr station 2 & 3 South Clamp-on re-capacitors in MMS
- Continue FVTX/VTX integration and survey
- FVTX rack assembly complete
- Begin VTX/FVTX cabling & fiber installation
- Continue DC East Repairs
- Continue RPC1 South installation
- MPC South troubleshooting
- BBC South installation
- Continue design and procurement for RPC3 shielding, Hodoscope, AH Crane upgrade & repairs, and R134A shed

TECHNICAL SUPPORT 2011

- Remaining Work Permits needed: End of Shutdown WP 11/23
- CM alignment stops Design in progress
- Reinstall BBC South 11/30
- MPC S troubleshooting 11/30
- Upgrade AH crane ???
- DC1 East/West troubleshooting as required in progress to 11/30
- RPC3 Shielding in progress
- RPC Hodoscope Mech Installation Done
- Prep for EC roll in, reinstall MMS lampshade 11/28-12/9
- Roll in EC 12/12-12/16
- Prep IR for run 12/12-12/16
- BP Survey (initial survey done, next after CM moved north, final after VTX/FVTX installed 10/17-12/12
- IR run prep, Pink/Blue/White sheets 12/12-12/23
- New and upgraded full detector commissioning 9/15-1/16/2012
- Run 12 cooldown 1/17/2012

• FVTX/VTX Chiller leak/contamination improvements	Done
• FVTX west assembly and QA tests	Done
• FVTX west pre-survey	Done
• VTX pixel/strip pixel repairs	Done
• VTX west re-assembly & QA tests	Done
• FVTX east assembly and QA tests	Done
• FVTX west integration with VTX west	Done
• Move FVTX east to Chem lab	Done
• FVTX east pre-survey	Done
• VTX east reassembly and QA tests	11/17
• FVTX/VTX west half survey	11/17
• FVTX racks ready	11/18
• FVTX east integration with VTX east	11/18
• FVTX/VTX east half survey	11/29
• Install FVTX racks on bridge	11/21
• Install FVTX fibers from rack room thru AH/sill to CM	11/23
• FVTX/VTX complete alignment survey in Chem. Lab	11/28-29
• Final FVTX/VTX QA tests and thermocouple wiring	11/30
• Move west FVTX+VTX half to 1008	12/1
• Install FVTX/VTX west detectors (mechanical)	12/1
• Survey FVTX/VTX west detectors (mechanical)	12/2
• FVTX/VTX west cable routing, plumbing, QA tests	12/6
• Move east FVTX+VTX half to 1008	12/5
• Install FVTX/VTX east detectors (mechanical)	12/6
• Survey FVTX/VTX east detectors (mechanical)	12/7
• FVTX/VTX east cable routing, plumbing, QA tests	12/9
• FVTX/VTX final electrical/fiber/plumbing/monitoring installation	12/16

VTX Status

- West Side:
 - Assembled w/ FVTX
 - Final pixel testing in progress (completed this afternoon)
 - Post survey testing required for strips (1 day) before move to 1008
- East Side
 - Strips and pixel barrels mated
 - Big wheels attached
 - Pixels need testing before FVTX cages installed (tonight)
 - Ready for FVTX cages tomorrow
 - Post survey testing required for strips (1 day) before move to 1008

MuTr Tasks

- Clean/install new parts and upgrades (MuTr (3 weeks, At RPC Factory) Done
- Re-install chambers and FEE plates (1 week) Done
- Re-install north section of bridge Done
- Re-cable, re-hose and test (3 weeks) Done
- Move CM north Done
- Station 2 North (south side from station 1) new terminators and modify dry air distribution headers Done
- Station 2 North (north side) new terminators and modify dry air distribution headers Done
- Station 2 South (south side) new terminators and modify dry air distribution headers Done

MuTr North & South Station 3 Re-cap clamps

- Install work platforms (north and south for capacitor clamp installation to lower octants of station 3) Done
- Install new capacitor clamps in lower octants, Including dry air headers (In Progress)
7/25-12/31
- Dry air manifolding to Cap clamp headers 11/21-12/31
- Re-install MMS east vertical lampshade 11/28-12/9

RPC Tasks

- | | |
|--|-------------------|
| • Install and test RPC1 North including all cables and plumbing | Done |
| • Build 1 new rack, upgrade existing RPC1 prototype rack and install on Bridge | Done |
| • Move CM north to run position | Done |
| • Install scaffolding in station 1 south | Done |
| • Modify BBCS cable routing | In progress |
| • Install RPC1 S | In Progress-11/23 |
| • Remove all scaffolding and hanging platforms | 12/5 |
| • RPC1 north and south commissioning | In progress |
| • RPC3 HV Distribution modifications, gas distribution modifications, PS calibration HV and services testing | In progress-12/5 |

- RPC1
 - HV Cables
 - Signal cables
 - LV cables
 - Racks
 - Assembly
 - Install on bridge
- RPC3 additional HV boxes
- FVTX
 - Cable Testing in place
 - **Clock Distribution (a new function)**
 - Bias cables
 - LV cables
 - Fiber
 - Mapper boards
 - CMT3 and CMT4 FVTX racks
 - Assembly
 - Install on bridge
- VTX Modify thermocouple connections
- PC Board Designs
 - PbSc terminator board production
 - New LV Dist front panels
 - GL1 6X1 Multiplexer assemblies
 - New MPC junction board
 - Dual SVX board for E. Kistenev
- West carriage ADAM system performance upgrade
- LeCroy HV control retrofit testing
- **MPC new racks**

Installation in progress (North done, south 11/23)

Installation in progress (North done, south 11/23)

Installation in progress (North done, south 11/23)

Done

Done

Installed in rack

Sal, Steve, Eric

Sal will build a small plastic 1 to 4 LV box to power clock dist boards

All FVTX Cables are here

"

"

Installed

*First rack is done, second rack 11/18
11/23*

ready for installation; programming in progress

Done

LV Dist Modules are complete

Boards due next week

In assembly phase

Andrei S. to take over this project

Approx. 1/3 of WC is now on Modbus server

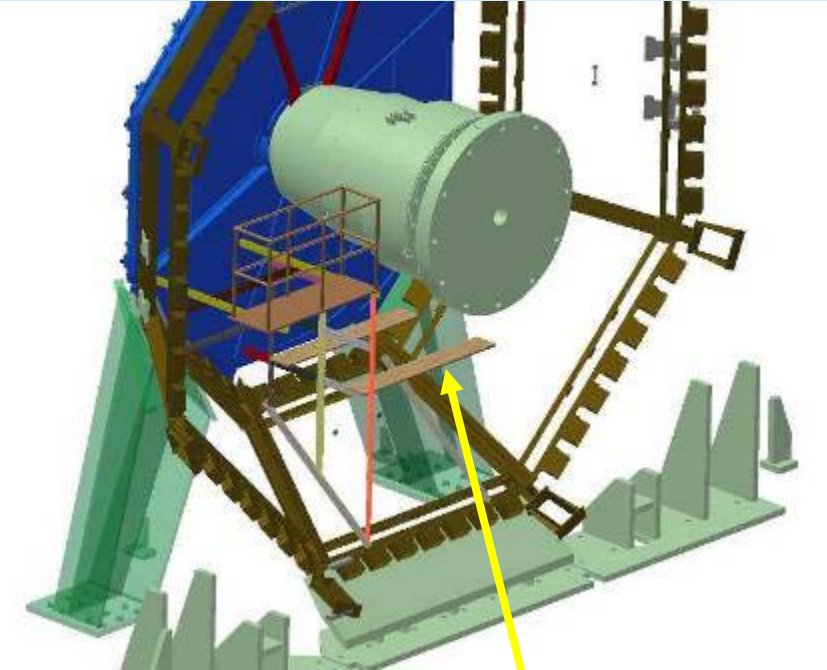
Mazsi is here this week testing HV control upgrade

In progress

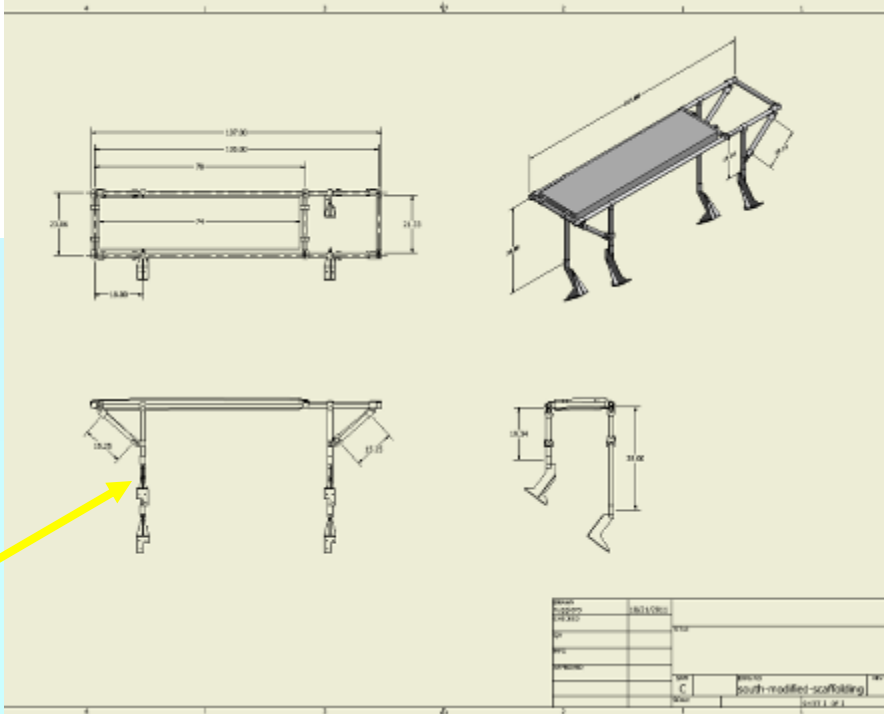
- Redo bypass line on VTX/FVTX spare chiller to remove kink - Done
- Replace MuTr flowmeters (north and south) north done south by - 12/31
- Replace tygon lines (80 line) from the cooling manifolds to the detector with 1/4" ID teflon tubing.
- Insulate whatever Big Wheel chiller lines in the IR that we can get to to reduce sweating in the IR.
Lines in the assembly area are done
- Build a system to clean the Novec during the run.
- Design a way to operate the Pixel at 10C without impacting the other systems. Split off/ new chiller/ conditioning cooling lines.
- Replace all cooling system RTD transmitters (frank has parts).
- Upgrade MuTr, MuID and DC/PC computers in the gas house to run windows7 (by DEC15th)
- RPC station 1 gas panels: One built and installed. Second partially build waiting for Dave to return should be finished by end of November. Remaining instrumentation and wiring will follow after the last panel.(dec 31).
- RPC station 1 panel and bubbler built. Done
- RPC Station 1 supply lines and exhaust (connecting to existing lines).
- Plumbing new supply for R134a, lines should have heat tape and insulation on exterior run. In progress
- MuID panel circulation. Class one div 2 fans.
- Dry air for MuTr HV work.
- Dry air filters to be replaced before run starts.



Station 2/3 S/N Access



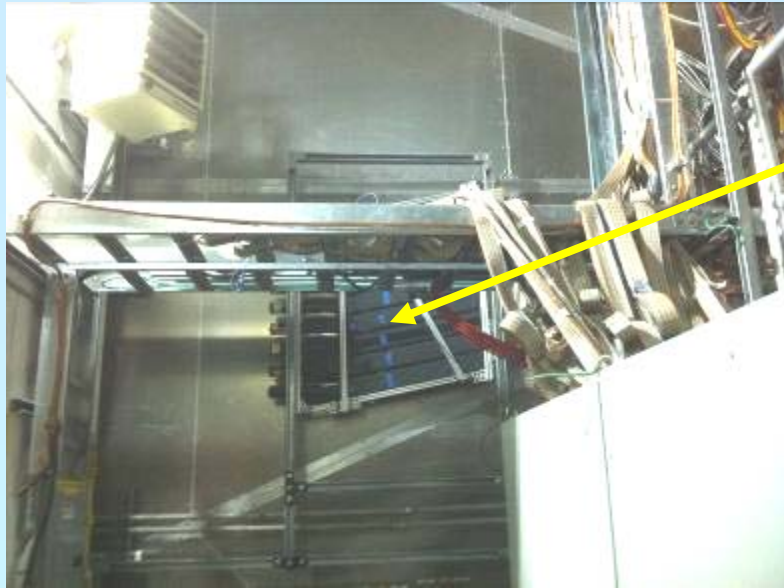
North Magnet Platform



South Magnet Platform

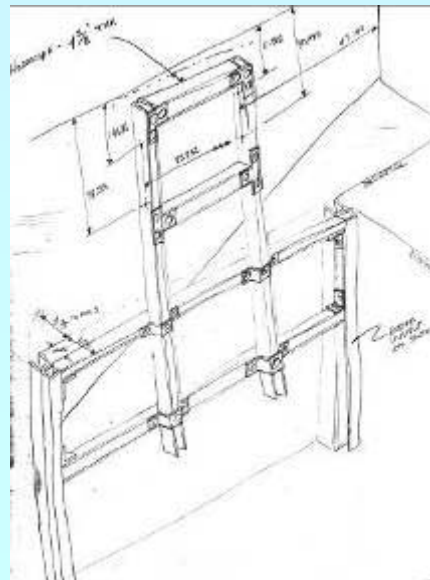
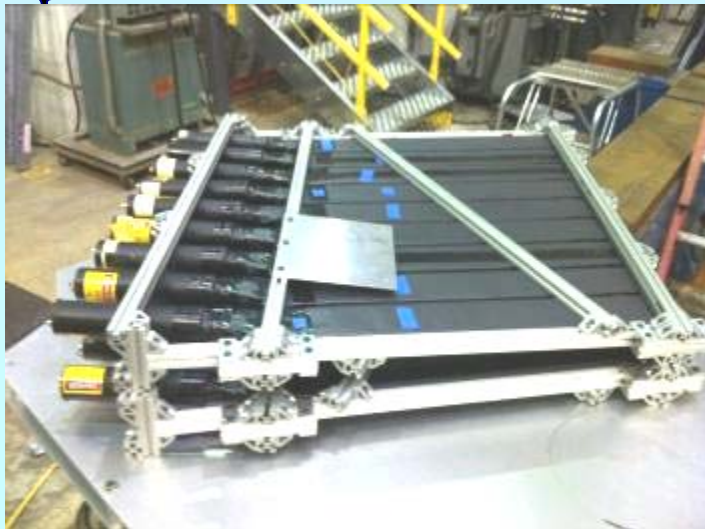
RPC Hodoscope

TECHNICAL SUPPORT



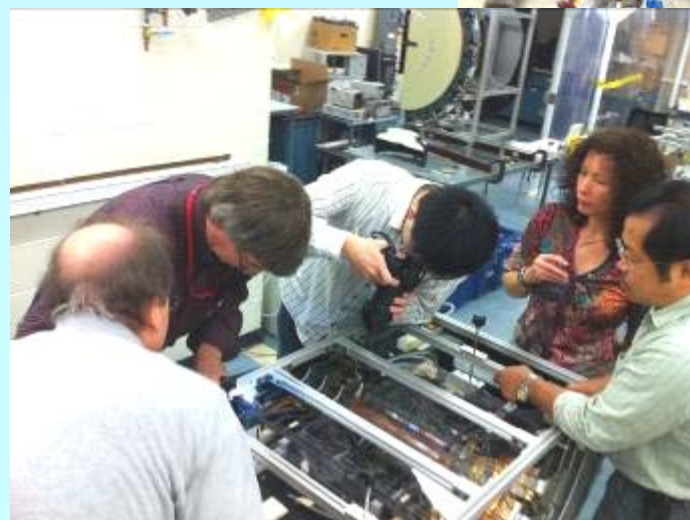
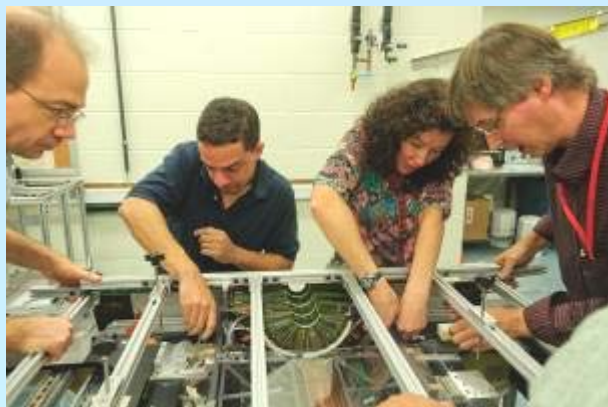
South

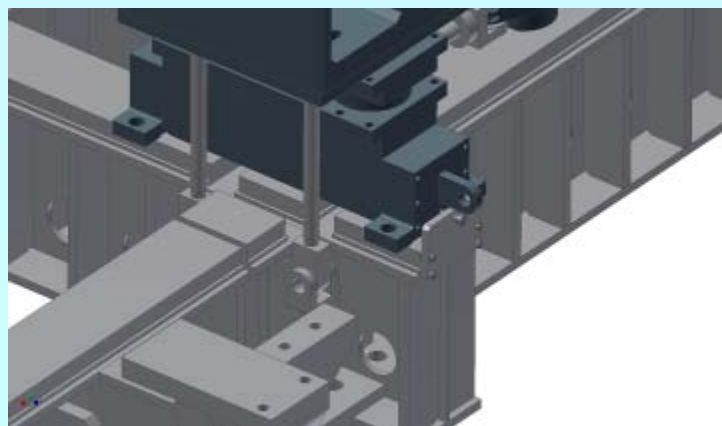
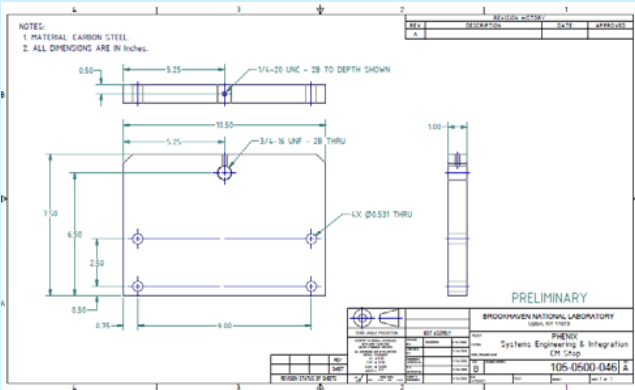
North



11/17/2011

13





Gas Mixing House East
Annex for R134A bottles
close to GMH.

No heating in shed (except
heating blankets), lines to
be insulated. Last year
heating blankets kept gas
warm but long length of
pipe allowed gas to liquify
on coldest days.



Infrastructure Issues

TECHNICAL SUPPORT ZONE

- Roof leaks in utility bathroom at northwest corner behind tech offices, over door between rack room and assembly hall, over door between control room and elect. ass'y room, southeast corner of IR and laser room.

- Flooding in AH/ Driveway heaving



- Electronics test/assembly room-to-parking lot door (does not open/close/lock properly - needs to be replaced)

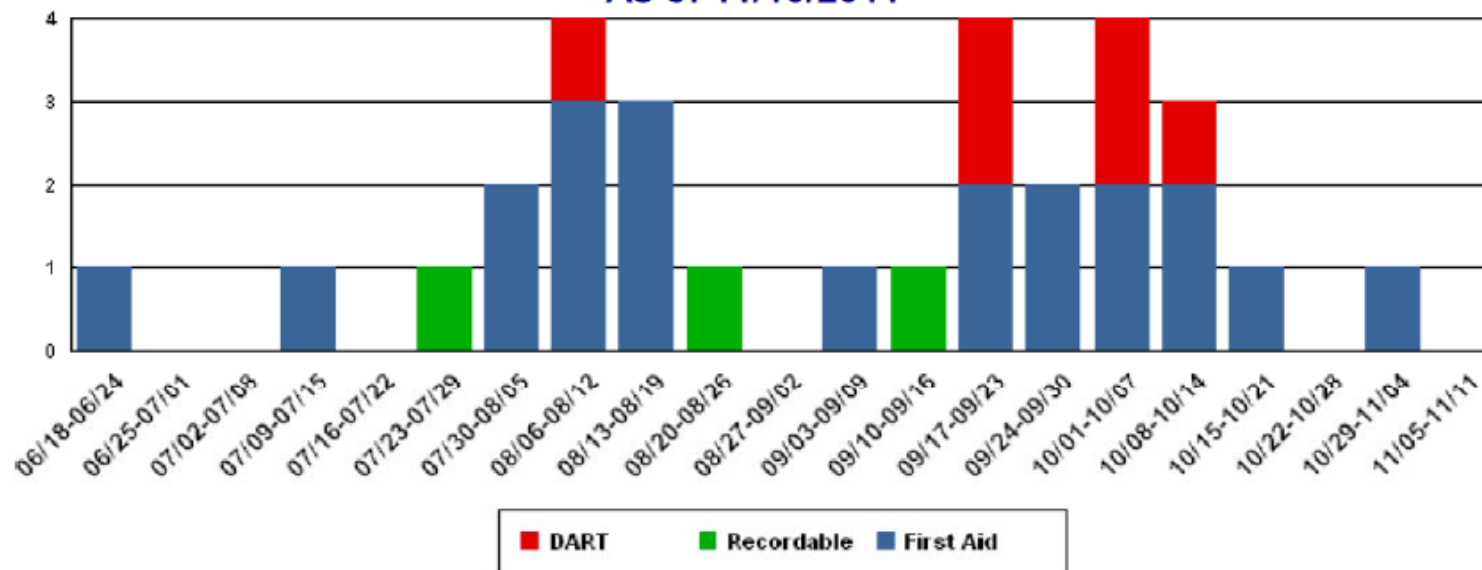


1. Getting to the end of the shutdown and into the holiday season, stress is increasing, need to take vacation days, push to finish new installations, but remember: Safety is still first.
2. PHENIX annual safety review
3. Actions 1, 2 and 3 from ATS 5093.6.6 will be tracked to completion under C-AD ATS # ?.
 1. Insufficient cross bracing for PHENIX experiment in Building 1008.
 2. No gate to protect ladder landing openings for PHENIX experiment in Building 1008.
 3. Gaps in guardrails on platforms on PHENIX experimental detector.

These three items will be completed by December 1, 2011. Please close out ATS 5093.6.7 when the items are completed in Family ATS.



Injuries Per Week As of 11/10/2011



Injury Status:

FY12 YTD: DART – 3, TRC – 3, First Aid – 6

FY11: DART – 27, TRC – 42, First Aid – 45

Recent Injuries

No new injuries for the week

Recent Events

11/9/11	Non-reportable	There was a partial discharge of a halon fire suppression system while fire alarm techs (BNL & contractor) were working on the system (removing tanks). The system provided 'under floor' protection. Approximately one half of the tank pressure was lost.
11/9/11	SC-BNL	A thimble sized crucible was found to have fixed contamination (650 CPM, initial ID is Th-228) in a precious metals vault. It is not a posted area for rad material. The contamination is 'fixed', non-removable. It is from legacy material, at least 5 years old, and below any other reporting criteria. Updated on 11/10/11: Direct frisk results: 650 ccpm beta/gamma and 240 cpm alpha. The item was immediately bagged and tagged, and then placed in a RMA in B490. The remaining items and area were frisked and were found to be free from contamination. The isotope was identified as Th-228 (at a 99.2 % confidence level) on the HPGe in B701.
11/9/11	Non-reportable	One BNL vehicle backed into another parked BNL vehicle. The result was a broken headlight to the parked vehicle.

Where To Find PHENIX Engineering Info



Lab Holidays Next Week:
Thanksgiving and Black Friday

No Planning Meeting next week

Remember to lock and secure offices
and equipment for the holiday weekend



Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm